

Piper excelsum subsp. psittacorum



COMMON NAME

kawakawa, pepper tree

SYNOMYMS

Macropiper psittacorum (Endl.) Miq.; *Macropiper excelsum* f. *psittacorum* (Endl.) A.C.Smith, *Piper psittacorum* Endl., *Piper excelsum* var. *majus* Cheeseman, *Macropiper excelsum* var. *majus* (Cheeseman) Allan

FAMILY

Piperaceae

AUTHORITY

Piper excelsum subsp. *psittacorum* (Endl.) de Lange

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

CHROMOSOME NUMBER

$2n = 26$

CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: OL, SO

PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: OL, SO

2009 | At Risk – Naturally Uncommon | Qualifiers: SO, OL

2004 | Range Restricted

BRIEF DESCRIPTION

Fleshy shrub with jointed green twigs bearing large green glossy heart-shaped thin leaves with hard green flower spikes to 200mm long inhabiting the Kermadec Island. Leaves to 200mm wide, veins radiating from stalk, slightly peppery to taste. Fruit orange.

DISTRIBUTION

Indigenous. Kermadec Islands (Raoul Island). Also Norfolk and Lord Howe Islands.

HABITAT

Coastal forest where it is often an important component of the shrub layer.



Raoul Island, 2004. Photographer: Bec Stanley, Licence: CC BY-SA.



Foliage, Ex Cult. Raoul Island,. Photographer: Peter J. de Lange, Date taken: 01/10/2005, Licence: CC BY-NC.

DETAILED DESCRIPTION

Dioecious shrub to small suckering tree up to 3 m tall, branching from base. Branches terete up to 40 mm diameter, initially bright green, maturing dull greenish-brown. Leaves mildly aromatic with a slight peppery taste when chewed; petioles u-shaped in cross-section, upper surface grooved, 20-80 mm long, green to yellow-green; lamina slightly bullate, 50-180 × 60-200 mm, pale green to dark green, rarely yellow-green, broadly ovate to suborbicular, base cordate, rounded or rarely with ends overlapping, apex distinctly acuminate, margins entire; main nerves 5-9, raised slightly above lamina surface. Inflorescence a solitary or paired spike bearing numerous, crowded flowers on a slender rachis, each flower subtended by a peltate scale 1.5-2.0 mm diameter; male spikes to 200 mm long, often faintly tapered, stamens 2-3; female spikes 40-80 mm long, style 3-4, minute; ovary ovoid. Fruiting spike 12-20 mm diameter, yellow or orange when ripe. Fruit fleshy, sweet, coalescent, with dimpled apex. Seeds 1.8-2.0 mm long, ellipsoid, grooved with 3-4 furrows, hard, peppery when crushed.

SIMILAR TAXA

Macropiper excelsum subsp. *psittacorum* is only known in the New Zealand Botanical Region from Raoul Island (and Norfolk Island if one wishes to include it in the New Zealand Botanical region). On either island it is the only representative of the genus present so it could not be confused with anything else. However, this subspecies is very rarely cultivated in New Zealand and so could be confused in the garden with other members of the *Macropiper excelsum* complex. From all of these it differs by its very thin, membranous, bullate leaves which are weakly aromatic and have almost no discernible peppery taste. It also differs by the male spikes which are the longest of the *M. excelsum* complex, very narrow and finely tapered. The name *M. excelsum* subsp. *psittacorum* is still widely, though incorrectly applied by many horticulturists to *M. excelsum* subsp. *peltatum* f. *peltatum* and sometimes even *M. excelsum* subsp. *excelsum* (see Taxonomic Notes below).

FLOWERING

August - November

FRUITING

Throughout the year

PROPAGATION TECHNIQUE

Easily grown from semi-hardwood cuttings and fresh seed. Rather cold sensitive (even in Auckland). An attractive plant, well worth the effort of cultivating. It does best in semi-shade in a free draining but moist soil. Once established can tolerate considerable drought.

THREATS

Not Threatened. Listed because in New Zealand it is only known from Raoul Island, where it is abundant.

ETYMOLOGY

piper: Pepper

excelsum: Tall

WHERE TO BUY

Not commercially available.

TAXONOMIC NOTES

The generic distinction between *Macropiper* and *Piper* has always been tenuous. Recently Jaramillo et al. (2008) have shown that *Macropiper* should be merged in *Piper*. However, they did not effect the full transfer of the New Zealand taxa to *Piper*. This action was taken by de Lange (2012) for *Macropiper excelsum* subsp. *psittacorum*, *Macropiper excelsum* subsp. *peltatum* f. *peltatum* and f. *delangei*.

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange 30 August 2005. Description based on live plants (wild and cultivated) and herbarium specimens.

REFERENCES AND FURTHER READING

de Lange, P.J. 2012: Taxonomic notes on the New Zealand flora: new names in *Piper* (Piperaceae). *New Zealand Journal of Botany* DOI:10.1080/0028825X.2012.708904

Jaramillo, M.A.; Callejas, R; Davidson, C.; Smith, J.F.; Stevens, A.C.; Tepe, E.J. 2008: A phylogeny of the tropical genus *Piper* using ITS and the chloroplast intron psbJ-petA. *Systematic Botany* 33: 647-660.

NZPCN FACT SHEET CITATION

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<https://www.nzpcn.org.nz/flora/species/piper-exelsum-subsp-psittacorum/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/piper-exelsum-subsp-psittacorum/>